In step **406** an entry is made in the STBT (station track button table) for the tracking user to indicate that a station is being tracked and also which station is being tracked.

In step **407** the STBT entry for the tracking station is set to indicate that a line pool is being tracked and also which line pool is being tracked.

In step **408** a tone is supplied to the user to indicate that a valid tracked facility has been stored in the system.

ACTIVATING THE TRACK ALERTING FEATURE

The user activates the track alerting feature in step **303**. By pressing the track button while on-hook, the user causes the I-use LED associated with the track button to be turned on as described above in "Overall System Operation". The I-use lamp being on indicates to both the user (visually) and to the system (via SBI) that the track alert feature is active. This information is used by the system process "update track buttons" described below in conjunction with FIG. **5**.

In step **501** (FIG. **5**) the system activates a periodic task to update stations using the track feature.

This task searches the SBID table for track buttons, and for each track button, performs steps **502** through **509**.

In step **502** the system determines the busy-idle status of the tracked or target facility indicated in the STBT table. For a station, busy is defined to be off hook at the station set and is determined from the SSH table. For a line pool, busy is defined as all lines in that pool being in use, and is determined by searching for an idle line in the line pool.

If the tracked facility is busy, then in step **503** the tracking station's status lamp (SBS) associated with the track button is updated to indicate a busy tracked facility. This would be lamp **211** in FIG. **2** (assuming button E to be the tracking button at station S1).

If the tracked facility is idle, then in step **504** the tracking station's status lamp (in SBS) associated with the track button is examined to determine the previous busy-idle state of the tracked facility. If the tracked facility was previously idle then nothing is done, since the lamp is in the proper state.

If the previous state of the tracked facility was busy then the status lamp associated with the track button (in SBS) is turned off in step **506**. At this point it is known that a busy to idle transition of the tracked facility has just occurred.

In step **507** the state of the I-use lamp, lamp **214** FIG. **2**, (assuming button E is the track button) associated with the track button at the tracking station is examined (using SBI). If lamp **214** is on, indicating that the tracking party preselected the track button, or equivalently, activated the track feature, then step **509** is performed.

In step **509** the tracking station is given an audible signal as an indication that the tracked facility just became idle.

It should be noted that if the tracking station does not go off-hook or select another button, then on subsequent off-hook to on-hook transitions of the tracked station (or subsequent busy to not-busy condition of the line pool), another audible tone will be provided to the tracking station.

CALLING A TRACKED FACILITY

In step **601** the user presses the track button and goes off-hook to request calling the tracked facility.

In step **602** the system examines the STBT entry for the station to determine what facility is being tracked. Depending on the entry, step **603**, **604** or **605** is done next.

In step **603** the system connects the user to reorder tone because the track button is not tracking any facility.

In step **604** the system places a call to the tracked station, under control of the identification numbers stored in the STBT table. This call may result in ringing or busy tone depending on the condition of the tracked station. It is possible to have a busy condition of the tracked station since a caller may operate the track button at any time without regard to the state of the status lamp. Also, depending on the frequency of execution of the periodic update task (step **501**, FIG. **5**), the status lamp may not instantaneously track the busy-idle state of the tracked station.

In step **605** the system seizes a line in a line pool for the user. If none are available the request will be ignored (or, optionally, reorder tone could be returned). It is noted that this busy condition will not usually occur since the user could have determined that there were no lines available from the active state of the green status lamp associated with the track button.

It should be understood that while stations and line pools have been discussed as being the target facilities any system facility may be the subject of the tracking feature without departing from our invention.

It should also be understood that while the tracking feature has been implemented in an electronic telephone system, such a tracking feature may also be utilized in key telephone systems of the type described in U.S. Pat No. 3,840,710 and may or may not have assigned a separate tracking button at the calling station.

We claim:

1. A station tracking control arrangement for use in a communication system having a plurality of stations having communication capability among each other over communication links, said arrangement comprising

means for determining the busy-idle status of each said station,

means controlled from a first station for temporarily establishing in association with said first station a selected other station as a target station,

means separate from said communication links for providing a first indication at said first station when said target station is busy, and

means separate from said communication links for providing a second indication at said first station when said target station is idle.

2. The invention set forth in claim **1** wherein said first indication providing means is a first illuminated lamp and wherein said second indication providing means is a second illuminated lamp.

3. The invention set forth in claim **2** wherein said second indication providing means includes means for also enabling an audible signal at said first station.

4. The invention set forth in claim **1** wherein said communication system further includes means for establishing communication connections to pooled groups of system facilities, and wherein